

Application Number: 10/597,901
Amendment Dated: August 3, 2009
Office Action Dated: February 3, 2009

AMENDMENTS TO THE SPECIFICATION

Please insert the following paragraphs between page 9, line 7 and page 9, line 8.

Figure 1 is an illustration of a first embodiment of the present invention, where the present invention comprises a stent 10 with a helically wrapped insoluble fiber 20 wound about the external surface of stent 10. Figures 2 through 4 illustrate alternative embodiments having insoluble fibers wrapped in various convoluted patterns about the external surface of stent 10, each embodiment having an increasing range of motion or capacity to loosen upon degradation of the release component. For example, Figure 2 illustrates a convoluted fiber 30 wrapped about a front external surface of stent 10 and a convoluted fiber 31 wrapped about the back external surface of stent 10. The embodiment of Figure 2 possesses a greater range of motion than the embodiment depicted in Figure 1 due to the convoluted nature of the fiber.

On the other hand, Figure 3 illustrates a convoluted fiber 40 wrapped about the front external surface of the stent 10 and a convoluted fiber 41 wrapped about the back external surface of the stent 10, wherein the convoluted fiber is wound tighter than the embodiment of Figure 2 and therefore has a greater range of motion. Figure 4 contains an even tighter convoluted fiber 50 wrapped about the front external surface of stent 10 and a convoluted fiber 51 wrapped about the back external surface of stent 10.

Figure 5 illustrates yet another embodiment wherein the insoluble fibrous component 60 is first electrospun into a fiber sheet that is helically wrapped about stent 10. Figure 6 illustrates a cross-section of stent 10 wherein two separate layers have been deposited upon the external surface of stent 10. First, stent 10 is coated with a release layer 200 and then the outer surface of the release layer 200 is coated with an insoluble fibrous

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layer 100. Alternatively, Figure 7 illustrates the cross-section of stent 10 wherein the release component 200 and the insoluble fibrous component 100 are co-deposited upon stent 10.

Figure 8 illustrates stent 10 having two flared ends 11, which serve to entrap the loose insoluble fibrous component after the release component has been degraded, as illustrated in Figure 9. The flared ends of stent 10, as shown in Figure 9, form a seal against the blood vessel wall 300, thereby creating a void between the body of stent 10 and the blood vessel wall 300. This void prevents the insoluble fibrous component 210 from seeping out of the void and being lost in the blood stream, instead trapping the insoluble fibrous component in the portion of blood stream 300 that contains opening 310 (e.g., an aneurysm). The insoluble fibrous component 210 is therefore, sufficiently free moving and able to be forced into an aneurysm 310 under ordinary hydrostatic blood pressure, thus forming a partial plug or thrombogenic surface.